Avian Influenza

Avian influenza (avian flu) is the name applied to influenza type A viruses which are specifically adapted to reproduce in birds. These adaptations mean that they can attach to receptors in bird tissues and grow best at temperatures over 100°F. As with all influenza viruses, they are named for the type of proteins on their surface (H7N9, and H5N1 e.g.). For the most part, bird flu will not cause illness in people and often doesn't cause illness in wild birds. However, influenza viruses change constantly and sometimes will become adapted to a new host. Sometimes it is because a host is infected with more than one type of influenza and the viruses exchange genes resulting in a new virus that can infect people. At other times a large mutation occurs that allows the virus to attach to a new receptor or grow at lower temperatures.

Most recently the H7N9 virus has been in the news because it has caused illness and death in people. Cases have only occurred in China. Many of the affected individuals have had direct contact with poultry but some have not. This virus has not caused illness in either wild or domestic birds (poultry, ducks, and pigeons). Another avian flu which has caused illness in both wild and domestic birds as well as people is H5N1. This virus which was first identified in 1997 and became widespread in 2003 is still present in parts of Southeast Asia and Egypt and there are occasional reports in the news.

Since the identification of H5N1, there have been many surveillance and research projects directed at detecting bird flu in wild bird populations, determining how and when birds become infected, and identifying the level of risk for people and poultry from contact with wild birds. It has been determined that gulls and some species of waterfowl are the main reservoirs for low pathogenic avian influenzas. Through the natural processes of mutation, some strains become highly pathogenic avian influenzas, causing disease in poultry, but while this occurs regularly it is not very common. The risk for people or poultry acquiring bird flu from wild birds is low. When an outbreak is identified in domestic flocks, steps are taken by the authorities to quarantine the affected flocks and eliminate the disease.

Safety Recommendations
While the risk of acquiring any disease, and especially avian influenza from wild birds is very low, hunters and others who handle birds should follow these safety recommendations:

- Don't harvest or handle birds that are obviously sick, abnormally tame, or found dead.
- Wear rubber gloves when dressing harvested game birds and cleaning bird feeders.
- Do not eat, drink, or smoke when handling game birds and bird feeders.
- Wash hands with soap and water or alcohol wipes immediately after handling game birds.
- Disinfect tools and work surfaces with a solution of 1 part household bleach and 9 parts water.
- Cook game birds thoroughly to kill viruses, bacteria, and parasites.

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Resources
The most current information about this type of avian influenza can be found at websites that are regularly monitored and updated, including:

- USGS National Wildlife Health Center: http://www.nwhc.usgs.gov/disease_information/avian_influenza/
- Pandemic flu: http://www.flu.gov/
- World Animal Health Highly Pathogenic Avian Influenza update: http://www.oie.int/en/animal-health-in-the-world/update-on-avian-influenza/2013/ and http://www.oie.int/en/animal-health-in-the-world/web-portal-on-avian-influenza/
- USDA-APHIS: http://www.aphis.usda.gov/newsroom/hot_issues/avian_influenza/avian_influenza.shtml

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